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ABSTRACT

Drawing upon literature on the reform of teacher education, this paper identifies major areas in which there is continuing research or a need for more research. These areas are: (1) the purpose of teacher education; (2) teacher effectiveness; (3) the professional components of teacher education programs; (4) recommendations emerging from graduates; (5) appropriate delivery schema for teacher education; (6) lifelong professional growth; (7) academic professional and application components; and (8) teaching knowledge and competence. A discussion is included on desired modifications in the academic, professional, and applied components. Recommendations based on the reform literature are made. A model for teacher education is presented using common suggestions and inferences from the literature. A three-page reference list is appended. (JD)

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THE MODEL OF TEACHER EDUCATION SUGGESTED BY THE LITERATURE ON REFORM

by

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THE REFORM LITERATURE

Revision Sorely Needed

> It now appears likely that unless colleges of education recognize the impending educational Armageddon and seek to counter the current trend, teacher education will cease to exist as an entity. Its functions will divided among the academic colleges or traded to external agencies as political pressures and economic stress force concessions. (Miller and Young, 1981, p. 54)

The message of Miller and Young is not new. Literature on teacher education for more than fifteen years overwhelmingly has stated that revision of teacher education programs is sorely needed. Calls for substantial reform have come from all sections of the educational enterprise and cross international boundaries (Lang, 1983). Criticism is not abating, since most teacher education institutions have not responded, or are inordinately slow to respond. As early as 1970, Denemark (1970) outlined weaknesses in the education of teachers. He warned that these weaknesses "demand basic reform or threaten revolution" in alluding to the statement of a distinguished task force of educators in their report to the American Association of Colleges for Teacher Education (p. 539). Dickson (1979) stated "preservice teacher education needs massive reform" (p. 17); B. O. Smith (1981) made the flat statement, "Nothing short of thorough overhauling will do" (p. 9); and, Joyce and Clift (1984) added, "Substantial changes must be made to make any real difference," observing, "The field [teacher education] is not just surrounded by critics, it is inhabited by them" (p. 5).

Based on the literature on calls for reform, this paper will outline the nature of reforms called for; discuss desired modification in the academic, professional, and applied components; and, use common suggestions and inferences from the literature to construct a model for teacher education.

General Nature of Reform Desired

As far back as 1969, Smith, Cohen & Pearl stated that the teacher who is to be effective in bringing about intended learning outcomes should be trained in four areas of teaching competence:

1. Command of theoretical knowledge about learning and human behavior.
2. Display of attitudes that foster learning and genuine human relationships.
3. Command of knowledge in subject matter to be taught.
4. Control of the technical skills of teaching that facilitate student learning. (p. 122)

The purpose of teacher education is to systematically provide for the development of each student into a professional educator--one who is a self-analyzing, self-actualizing, teacher/decision-maker (Schaller and Lang, 1983, p. 82). This requires that the preparation program be concerned with two major standards that are complementary: academic standards and professional standards. The concept of "academic" standards requires little explanation. "Professional" standards refer to classroom performance standards. While traditional teacher education has been reasonably effective in seeing to academic standards, its record in the professional realm has come under severe criticism (Lang, 1983). Professional standards require more than knowledge about subject matter, learning, and human behavior. Performance capability (integration of theory with practice) is required. This cannot be left to chance, it will not come about by osmosis. Colleges of education have relied heavily on TELLING students what a teacher should be doing--they have not stressed BEING ABLE TO DO. Peter (1975) asserted: "Professions which have high standards for preservice preparation require that the student achieve substantial theoretical knowledge and a repertoire of precise professional skills" that are retrievable as the teacher makes professional decisions (p. 9). We have been using an arts and sciences model for preparing teachers. The primary instructional mode has been lecture/write papers/write exams and then throw students into the "deep end" of the practicum with scant supervision.

It is small wonder that colleges of education have been subjected to severe criticism. The frequent charge in the reform literature is that much of the teacher education program is irrelevant, that it does not provide for pedagogical competence, that theory is not being tried in practice in a meaningful way, and that the realities of the classroom are not considered. Huling and Hall (1982) contended that "there is not a close match between the needs of schools, individual teachers, and the training offered in preparation programs" (p. 11). Spillane and Levenson (1976) remarked, "Teacher education is the form of professional training least respected by professionals and the general public. Few teachers believe that their expertise was gained in education courses" (p. 435). Merrill and Schuchman (1973) added, "We are preparing teachers for yesterday's classrooms" (p. 3).

Considering What is Known About Effective Teaching

Teacher training institutions seem to ignore, or are unaware of, what is known about effective teaching. More than a decade ago Peck and Tucker (1973) concluded:

> Just within the past 10 to 15 years the operational skills of teaching have become better defined and measured than ever before. Traditional teacher education, with its frequent lengthy stays in the semantic stratosphere, has not done a very effective job of developing these skills, particularly at the preservice level. (p. 970)

More recently, Berliner (cited in Hosford, 1984) wrote that we should be optimistic about what we know about teaching, about what we can learn from research on teaching. He asserted "the glass is half full," and not "half empty." Joyce and Clift (1984) agreed, desiring teacher education and teaching to be "connected to the emerging knowledge base" (p. 8).

Colleges of education, typically, provide programs that include poorly, if at all, articulated academic, professional and practical components. Joyce (1981) discussed what he called the problem of "structural unity" in teacher education: "program unity has been a serious problem in teacher education" (p. 3). This will be discussed further later.

Articulation of Components

Not only are the components barely (if at all) related, what is provided in the professional component is fragmented and disjointed. Joyce and Clift (1984) would like to see a program that is not fragmented and meaningless. Rather, they would like a "united sequence of experiences that are designed to gradually induct beginning professionals by teaching some of the early skills of teaching by providing bases for continued learning." This should be organized thematically with . . . frequent opportunities to reflect on and integrate experience" (p. 9-10). The view of O'Dwyer (cited in Turney, 1977) was similar, telling us that teacher education has been besieged by courses that contain needless repetitions, omissions, contradictions and uneven treatment. Often, pedagogical competence (in teaching procedures and approaches) has been compounded by the unwillingness, or incapability, of faculty to model effective teaching. Peck and Tucker (1973) were aware of the problem even earlier, declaring, "Teacher education can no longer remain in a happily ignorant, ineffectual state consisting of romanticized lectures, on the one hand, and fuzzy of unplanned 'practical' experiences on the other (p. 970). What many teacher educators "look upon as natural--that is, the relatively unconnected courses and experiences which occur in most teacher education programs--we ought to regard as anomolous" (Hunter, 1980, p. 7).

Time Given to the Professional Components

Many sources concur with Friedman, Brinlee, and Hayes (1980):

> In the past, a teacher was usually able to compensate . . . through a sort of self-directed, on-the-job training. Today this . . . is no longer feasible or adequate. If colleges continue to accept formulas such as 3 hours of history of education + 3 hours of child development + 6 hours of methods + 6 hours of student teaching = a teacher, an increasing number . . . will find themselves unable to cope with the realities of the classroom. (p. 7)

The Canadian Teachers' Federation has called for a minimum of two years of professional training; the Task Force on Secondary Teacher Education, University of Regina (1980) agreed; and, Joyce and Clift (1984) and Patterson, Lawson, Mokosch and Morcos (1984) were among those who felt that teacher education should be a two-year block. To achieve this, a trend in both the United States and Canada is to consider a five year program (Patterson et al., 1984; Corrigan, 1982, p. 15). B. O. Smith (1980) agreed, noting that knowledge--academic and pedagogical--is accumulating ever more rapidly, and demands upon teachers are multiplying (p. 87). What is obvious is that theory cannot be effectively tried in practice, that a needed knowledge and SKILL level cannot be achieved in the traditional short professional preparation portion of the program, which is largely lecture oriented. In short, a two year pedagogical minimum is mandatory. Further, the trend in the education of professions other than teaching has been to increase the professional component (Lang, 1983, pp. 93-96). Smith (1982) observed that those professions which have made major gains "in both social esteem and salary during the past half century, have almost inevitably been those professions which have substantially increased the qualifications required" (p. 4). Smith and Street (1980) remarked, "teacher preparation preservice programs have not evolved and developed in a manner parallel to other professions;" for example, legal professional preparation has increased from three to four years and the actual amount of professional training for pharmacy and engineering has increased considerably (pp. 103-104).

Focus of the Professional Component

Monahan (1978) suggested that improvement results from an increased professional component that emphasizes PROCESS rather than CONTENT (pp. 28-30). Lasley and Applegate (1982) agreed that current teacher education programs promulgate content first, "We have to ask what content is really needed. . . . Students must be able to translate content into humane daily action" (p. 4). Monahan also asserted, "process is the essence of pedagogy. And that process must be oriented to the . . . reality of the teaching environment" (p. 29).

Teacher education must focus on what teacher is able to do, on the development of a decision-making arsenal, a cadre of rapidly-retrievable, practical pedagogical knowledge and skills--the key descriptor being the word "skill," which can be drawn upon as needed by an effective teacher (Task Force on Secondary Teacher Education, University of Regina, 1980, p. 100). Howsam et al. (1976) said, "teaching is a decision-making and decision-implementing process" (p. 36). If the theory presented in teacher education is to be assimilated into the decision-making and performance capability of students, this must be attended to in a systematic fashion (Joyce, 1981, pp. 7-8). Reporting on research done on interactive decision-making, Clark and Yinger (1979) said, "The teacher is seen as constantly assessing the situation, processing information about the situation, making decisions about what to do next, guiding action on the basis of these decisions, and observing the effects of the action on students" (p. 247). "It is because each moment of a

teacher's life means complex situations and new decisions, that teachers must possess the knowledge, behaviors, attitudes, and skills required" (Howsam et al., 1976, p. 36).

Lang (1983) reviewed the literature on reform of teacher education. Most sources decried the relevance of teacher education to actual school conditions, happenings, and needs. Failure to integrate theory with practice, together with the fragmentation of the various components of teacher preparation, appeared to be at the root of much of the criticism. Critics would like to see closer linkage and cooperation with school systems and the organized profession; they desired increased cooperation and coordination with the partners who deliver teacher education; and, they wanted integration of the academic, professional, foundational and practicum components. Many felt that this integration should take place for the entire program, and occur in each year of the program. Other desired improvements included: a more relevant academic component that attends to actual school and school curriculum needs; more careful screening at entry and during the program; and, improving the effectiveness of the practica (particularly the quality of supervision by university faculty). Increased attention is required for the development of practical instructional skills, interpersonal relations and communications skills, classroom management and discipline skills, curriculum development and planning skills, multi-cultural knowledge and skills, dealing with exceptionality, providing for individual differences, and the effective application of educational technology.

Other Professional Programs

Lang (1983) felt that teacher education should learn from the preparation of professions other than teaching. Trends in professional preparation include attention to interpersonal training, transfer of theory into practice, and that preparation should be strongly influenced by the professions themselves. In contrast, teacher education often is much like arts and sciences training, following a model and delivery mode that is not only similar to, but unduly influenced by decisions made by, arts and sciences faculty.

Recommendations Emerging from Graduates

Follow-up studies of teacher education graduates were also reviewed by Lang. In order of frequency of mention, the following recommendations for reform emerged:

1. Theory must be applied in practice.
2. Increased emphasis is required on instructional skills--techniques, methods, or competencies.
3. Provide more emphasis on knowledge about, and skills in, classroom management and discipline.
4. Provide training in interpersonal skills.
5. Increase the relevance of the foundations of education.

6. Improve student teaching and the practica (particularly the quality of supervision from the university).
7. Provide more attention to teaching pupils who are slow learners or who have learning problems.
8. Techniques of motivating pupils should receive more attention.
9. Improve instruction in the use of audio-visual and teaching materials.
10. Improve the relevance of that portion of teacher education provided through the academic component to what is needed by practicing teachers.
11. Improve preparation for evaluation of pupils.
12. Provide better preparation for teaching for individual differences.
13. Give more attention to multi-cultural education.
14. Give more attention to planning for teaching and lesson planning.
15. Improve the quality of instruction by university professors.

Delivery Schema

A variety of sources commented on the delivery schema appropriate for teacher education. McPhee (1978) said, "we need to present theory and practice as . . . interdependent" (p. 56). Application experiences facilitate integration. Combs et al. (1974) pointed out that field experiences should be "a continuous, integral part of the entire program" (p. 149). Practica should be designed to "bring theoretical and practical aspects of undergraduate teacher education into a clear and interacting type of relationship" (Committee to Evaluate the Extended Practicum Programs at Alberta Universities, 1981, p. 14). While the academic portion of the program is sometimes omitted from exhortation to integrate (often, it seems, through feelings of hopelessness about the practicality of this happening), many sources have demanded an integrative paradigm for the professional component (Blackburn et al., 1981; Howsam et al., 1976). Evidence that integration of the ENTIRE program with practice is desirable is that it is included in two of the model programs presented at the International Colleges for Educating Teachers World Conferences (Klassen and Leavitt, 1976, pp. 89, 93). Various sources agree that there should be opportunity for application each year of the professional program (Committee to Evaluate the Extended Practicum Programs at Alberta Universities, 1981, p. 39).

Corrigan (1982) felt that "the concept of 'theory in use' is as important for liberal arts courses, especially the undergirding disciplines, as it is for professional education courses" (p. 12). Howsam (1979) desired cooperation between arts and sciences professors, education professors, and practicing professionals, and that these work together in creative partnerships (pp. 28-29). Further, as the Task Force on Secondary Teacher Education, University of Regina (1980) wrote: "The basic structure of the program should be such that integration among the various elements can readily occur" (p. 104).

Numerous authorities desired a delivery cycle such as that called for by Joyce (1981)--one of theory-demonstration-practice-feedback. Peck and Tucker (1973) saw the need for a well-structured cycle, saying that the research shows that a 'systems approach' substantially improves teacher education effectiveness (p. 942). Schaller and Lang (1983) saw the model as being "In stages of complexity . . . one of theory--controlled practice--feedback/reflection--further theory--further practice" (p. 82). Joyce (1981) added the concept of "coaching" to the cycle, saying that to bring students to the point where a teaching strategy can be used effectively, "the condition we call 'coaching' in the field setting" is needed (p. 7). Repetitions are needed to acquire the theory-in-use capability that is necessary.

Lifelong Professional Growth

Learning by a teacher does not stop with the acquisition of a degree. However, preservice programs should provide the base for lifelong professional growth. Joyce and Clift (1984) are among those that recognize this need. They stated:

> The purpose of initial preparation is to prepare teacher candidates: (a) for the lifelong study of the world, the self, and academic knowledge; (b) for the lifelong study of teaching; (c) to participate in school renewal efforts . . . and (d) to approach the generic problems of the workplace (the school and the classroom). (p. 8)

This involves having self-analysis, problem-solving, and self-development schema as a deliberate, continuing part of the preparation program.

The area of human relations and communications skills deserves special mention, since traditional programs rarely provide more than token training. This kind of preparation, properly, is the responsibility of the professional program. Teaching is a "people" business, or as some describe it (Combs et al., 1974), a "helping profession." Teachers need to understand how children learn and how "cognitive and affective development create the conditions of learning" and how to "establish group relationships and democratic interactions in the classroom" (McDaniel, 1981, p. 89). Development of interpersonal skills must be precisely undertaken, rather than left to accident. Peck and Tucker (1973) observed that these skills can be taught (p. 965). Lang (1978) found the development of interpersonal skills to be a major area discussed in the literature. The Task Force on Secondary Teacher Education, University of Regina (1980) had the provision of human relations and interpersonal skills as its strongest data based conclusion.

Coordination and Cooperation

The program that is suggested by the reform literature clearly should be one that ensures that it is well coordinated and integrated,

and that cooperation of the partners in education is needed. Blackburn et al. (1981) called for the teacher preparation curriculum to be an "integrated, comprehensive educational experience" (p. 5). Howsam et al. (1976) noted that cooperation was needed between arts and sciences professors, education professors, and practicing professionals (pp. 28-29). Cooperation by the partners in teacher education can foster program integration so that a relevant program that avoids duplication, omission and contradiction, can be presented. Joyce (1981) added:

> Power is achieved in educational programs through unity among components so that the effect of each is pyramided far beyond what its effect would be alone. Program unity has been a serious problem in teacher preparation. . . . the matter cannot be dismissed lightly. (p. 3)

Lang (1983) observed that the literature he reviewed reflected a common concern for clear communication with the field, within the faculty, and with arts and sciences faculty.

Balance in the Program

The question of a proper balance in a teacher education program is an important one. How much academic content (and what kind) is really needed? How much professional? How much foundational? How much application opportunity? Realistically (at present) we have four short years--this means that not all "goods" can be achieved. One must ask, then, what is the minimum that must be available for each component? What would be desirable beyond this minimum; and, what is enriching for the especially talented or motivated? It must also not be forgotten that learning is not over with preservice education. Perhaps, some content and skills are better learned after graduation when needs can be more clearly identified.

One might well learn from the discipline of economics. This posits the "law of diminishing returns." Let us use an example to illustrate this law. A farmer works with four factors of production to produce a crop--land, labor, capital, and entrepreneurship. There are finite amounts of each factor available to the farmer; and, adding more of any given factor means that less of another factor(s) can be used. The appropriate balance must be achieved. While the yield of the field can be increased by adding, say, fertilizer (capital), as the farmer applies more and more fertilizer, the extra product attributable to the fertilizer will decline. Eventually, more fertilizer will fail to add anything to the crop. This law holds for any factor when it is combined with fixed amounts of the other factors. Similarly, adding more of one of the components of teacher education (for example, arts and sciences classes) at some point, will add little to the capability of the intending teachers. More is not always better. Indeed, adding more arts and sciences classes at the expense of other components may even have decremental effects on professional capability. As has been discussed earlier, the time given to the professional component has been severely criticized as being inadequate. In fact, the criticism has been that

much of what is studied in arts and sciences has often been irrelevant or inappropriate, and that arts and sciences faculty seem to be unaware of, or ignore what is contained in the K-12 curriculum (Lang, 1983). Yet, the academic content has not been described as inadequate by graduates. Perhaps the answer is to judiciously select the needed arts and sciences content, cutting back on that which has been described as unnecessary (for example, are three classes in calculus really needed by secondary teachers; is any calculus needed by elementary teachers--using time that could be employed in an improved professional component). A discussion of the academic, professional and applied components of teacher education follows.

Academic, Professional and Application Components

The Academic Component

Those who criticize teacher education programs are not merely criticizing faculties of education. They also criticize arts and sciences faculties. Indeed, in many programs, the majority is delivered by arts and sciences faculties. Improvement is also required here--these faculties must do more than offer criticism from an unchanging "on-high" position (Lang, 1978, p. 46). Many of the papers Lang reviewed recognized the importance of the academic component and that the teacher needed to be an "educated" person who was "liberally educated" and had appropriate subject matter discipline background. He also, however, observed:

> Exactly what a "liberally educated" person is, is rather elusive, as are the kinds of courses that will contribute to this kind of education. We seem to resort to tradition and edict rather than reason . . . when identifying the Arts and Science component that education students are forced to take. (p. 46)

This question is perhaps better addressed empirically. Nevertheless, numerous authorities prescribe the courses that should be taken by an intending teacher.

Howsam (1979) found that, usually, the general or liberal component was about 50 hours including required or elective work in humanities and fine arts, mathematics and science, social and behavioral sciences, and health and physical education. He wanted faculties of education to have more say in order to strengthen the undergirding disciplines (psychology, sociology, and anthropology) of the profession (pp. 2-3). Corrigan (1982) would add philosophy, political science and economics to the undergirding disciplines (p. 8).

The appropriateness of the contribution to teacher education by arts and sciences faculties does come under considerable criticism by several authorities. For example, Howsam (1979) remarked:

> Colleges of education should attempt to ensure that the Arts and Sciences requirements and offerings are maximally relevant to the public school curriculum. (p. 2)
>
> Professional schools may yield all or some of the undergirding disciplines work to the academic disciplines or they may find it necessary to teach all or some themselves. Almost invariably there is tension over how relevant to professional needs the courses in the disciplines are. This is perfectly understandable since the courses--unless specifically taught--are not targeted at the professions or a particular profession. They contain students from more than one professional school . . . and, since they usually are taught by faculty from the discipline, favor the academic students.
>
> Whatever the situation, professional schools need to exercise as much control as possible over relevance. (p. 3)

Denemark (1970) saw that a weakness is the "inadequate and irrelevant general studies or liberal education" and that the academic environment is "hostile" (pp. 539-540). Lasley and Applegate (1982) agreed with Dewey, who saw content knowledge from arts and sciences, as it is delivered, as being emphasized too much. They quoted Dewey (1966):

> The accumulation and acquisition of information for purposes of reproduction in recitation and examination is made too much of. . . . Frequently it (knowledge) is treated as an end in itself and then the goal becomes to heap it up and display it when called for. This static cold-storage ideal of knowledge is inimical to education development. (p. 4)

Lasley and Applegate wanted content which related to the reality of teaching, and asked that the content really needed should be determined.

The Task Force on Secondary Teacher Education (1980) of the University of Regina concluded:

> Several data sources, both in the literature and in . . . collected data, suggest that faculties providing the academic base present courses that serve the needs of intending teachers. It is suggested that present courses have to be redesigned so that they relate more specifically to the curricular content that is taught in the . . . school programs. Perhaps much of the specialized material presently taught . . . is not relevant to the preparation of . . . teachers. (pp. 93-94)

Corrigan (1982) agreed, stating that general and liberal education emphasis "should be on the work of the teacher in the classroom" (p. 8).

Lang (1978) concluded that the most defensible preservice teacher education programs "sequentially integrate professional education, Arts courses and field experiences" (p. 47). He asked for dialogue and communication between education and arts and sciences faculties (p. 47).

He went on to state:

> Perhaps other faculties should examine the possibility of delivering their content (at least to education students) in alternate manners. This may be necessary if faculties of education decide that the Arts and Science delivery mode is dysfunctional as a number of writers suggest. (p. 47)

Peter (1975) made the observation that there is a low correlation between academic achievement of teachers and the achievement of pupils (p. 5). It appears that empirical research is needed to determine the academic study that does actually make a significant difference, and how this should be integrated into the program.

Finally, the Task Force on Secondary Teacher Education (1980) of the University of Regina, reported that several authorities desire that university faculty (including arts and sciences faculty) provide appropriate role models of effective teaching. "They should provide the very best model of how to teach their particular discipline" and carry-over into teaching is inevitable (pp. 75-76). Specific recommendations were:

> Faculties involved in the preparation of . . . teachers provide classes specifically related to the curricular content of the high schools.
>
> Faculties involved in the preparation of secondary teachers provide classes that teach the structure of their discipline.
>
> Faculties involved in the preparation of secondary teachers exemplify excellence in the teaching of their discipline. (p. 107)

Adler (1982) offered the following summary:

> The present teacher training programs turn out persons who are not sufficiently equipped with the knowledge, the intellectual skills, or the developed understanding needed to . . . help the young. (p. 60)

The Professional Component

While many sources have criticized the academic portion of teacher training, an overwhelming call for reform is heard for the professional component. Among the issues are: the need for transfer of theory into practice; the development of practical pedagogical skills; the development of interpersonal and communications skills; the improvement of the practica; a focus on professional decision-making; lifelong professional improvement capability; and, the need to lengthen the professional program.

As indicated earlier, achieving satisfactory professional standards requires performance capability. Teachers must learn the skills,

strategies and techniques of teaching so cognitive, affective and psychomotor outcomes (as well as process outcomes) can be most effectively achieved by learners. As Gage (1974) emphasized, "This realization has . . . led to all the attempts of the last decade to improve the effects of practice for prospective teachers--attempts at microteaching, minicourses" (p. 178). That is, intending teachers should learn both simple and complex teaching skills, which requires "(1) cognitive understanding, (2) practice, and (3) knowledge of results (feedback)" (Hudgins, 1974). What is needed is the kind of process cycle outlined by Hunter (1980), requiring linking, interweaving, tryout and feedback (p. 7). There must be assurance that application of theory takes place, systematically, in simulated and actual environments. A plethora of sources agreed on this.

As discussed earlier, there is "a body of knowledge about teaching and learning that should be the basis for effective performance" (Blackburn et al., 1981). The study of teaching and theory of learning is required in the professional component, requiring application experiences so that the "student may conceptualize principles and interpret their application to practical problems" (p. 9). This requires general (generic) and special methods courses which should be taught as being the application of teaching and learning theory" (p. 9). The authors list 32 items for treatment in these courses (teaching competencies will be discussed later in this paper). Typically, teacher education programs either only provide lectures on these competencies or leave them to the field or after graduation.

Friedman et al. (1980) felt that the "professional core is the heart of the recommended teacher education curriculum" that they espoused (p. 118). Teaching specializations and general education components should be "designed to support the professional core. In many conventional programs the opposite case prevails. . . . concentrating on professional skills takes a back seat to general education and discipline-centered coursework" (pp. 119-120). The authors focused on professional competencies "as an integrated body of skills, knowledge, and attitudes rather than as a collection of discrete unrelated objectives" (p. 120).

Their focus was on integrating what is taught in separate courses of the program so that students would be able "to understand the relationships among separate objectives both within and across courses" (p. 121). They conceptualized four skill strands interwoven throughout the courses taken, with development of skill proceeding in a spiral-like fashion. The skills are:

1. planning skills,
2. implementing skills,
3. assessment skills, and
4. interactions skills. (p. 121)

Each of the courses taken should contribute to the development of one or more of these skills (p. 121). Also, each course in the professional

core requires a laboratory section (p. 130).

Howsam, Corrigan, Denemark and Nash (1976) provided a "Conceptual Framework for Planning the Professional Components of Teacher Education." They saw seven categories of objectives for teacher education: knowledge, attitudes-values, behaviors-skills, introduction to profession, personalization, professional literacy, and continuing development. Professional components, they felt, were: foundations of education, teaching behaviors and skills (both generic and specialized), elective subcultural study, and field application (pp. 86-87). Commenting on the foundational component, they stated, "the central weakness of foundational study has been the tendency of many foundations professors to look at their fields as if they are full-blown disciplines" in their own right, providing justification for being exempted from "field experiences, or the problems of practioners--which they perceive as resting OUTSIDE the analytic or descriptive functions of the discipline" (p. 87). Howsam et al. firmly stated:

> The "discipline" approach is a retreat from what should be the basic purpose of all foundational studies in education: to provide interdisciplinary and conceptual illumination of the issues, problems, and procedures confronting contemporary educators everywhere so that more professional and humane public action might ensue. (p. 87)

They added:

> Foundational studies must be INTERRELATED. The more specialized and isolated each of the academic disciplines becomes, the more necessary it will be for foundations faculties to reintegrate the subject matters for sound education judgement and action. Educators face a welter of problems and issues too complicated to be solved within the framework of a single discipline. (pp. 87-88)

They went on to recommend "That . . . changes be made. . . . the undergirding disciplines must become interdisciplinary; unifying in concept and practice; less obscure, and more human service functional; problem-based, featuring 'theory in practice' modes of inquiry" (p. 88).

Howsam et al. then directed their attention to the development of a repertoire of teaching behaviors and skills, saying:

> A professional teacher is one who possesses a broad repertoire of classroom behaviors and skills, grounded in professional and academic knowledge. Educators must also develop skills in the performance of teaching through practice in a controlled training environment. . . . Without generic teaching behaviors and skills, new teachers are likely to become discouraged and either leave teaching or settle upon narrow techniques simply to "survive" in the classroom. (p. 89)

Preparation programs, these authors asserted, must foster humanis-

tic educational values and attitudes. Prospective teachers "need to induce operational values from real school situations, and to test the consequences of assumed values" (pp. 90-91).

They made three further recommendations:

> all prospective teachers make use of their own interests, talents, and styles in developing beginning teaching behaviors and skills.
>
> provide opportunities for teachers and teacher candidates to become knowledgeable about important educational and socio-political issues, and capable of interacting effectively with concerned citizens in the consideration and resolution of such issues.
>
> that teacher candidates study alongside faculty who have mastered research and scholarship skills, and who can encourage prospective teachers to develop their own inquiry and research skills. (pp. 90-91)

"A continuum of field experiences to link the professional knowledge and skills is necessary" (p. 93). The design of teacher education should include "a continuous interlocking relationship between practice and theory. . . . direct useful experience, with simultaneous study of useful knowledge" divided into achieveable goals, gradually increasing in difficulty "is the ideal form of preparation" (p. 94).

Joyce and Clift (1984) appear to corroborate the views of Howsam et al. They stated:

> We propose substantial changes in what we perceive to be a fragmented, often meaningless curriculum for prospective teachers. Our goal is to promote a united sequence of experiences that are designed to gradually induct beginning professionals by teaching some of the early skills of teaching and by providing bases for continued learning. (p. 9)

They note, "The current potential for continuity is virtually nonexistent as teachers move between unrelated courses and between the university and the school site. Sequential learning experiences would provide a hierarchy of activities to build on previous experiences" (p. 10).

The quality of instruction by faculty should not escape comment. Many follow-up studies have roundly panned instruction. Criticisms have included: lack of relevance; failure of professors to practice what they preach; duplications and omissions; adherence to lecture modes; an academic, content-first approach; lack of application of content; contradictory instruction; lack of knowledge of the total program; and lack of individualization (Lang, 1978, pp. 47-49).

Blackburn et al. (1981) claimed:

> The competence of faculty is a crucial factor in teacher education not only for the quality of instruction . . . but also for the total atmosphere in which the programs are implemented. Above all, the quality of teacher education programs offered, and the degree to which such quality is maintained, depend primarily on faculty. (p. 13)

It is remarkable, according to Smith (1981), that "During the last 50 years, when knowledge was increasing by leaps and bounds, the basic pedagogical problems remained basically unchanged. Pedagogy is still taught as an academic study" (pp. 10-11).

Reporting to the American Association of Colleges for Teacher Education, Howsam et al. (1976) said that "college instructors must incorporate the same principles of instruction in their own teaching that they wish to engender in their students" (p. 91). Touching on the importance of faculty to teacher trainees, they said that the "mentor is a model, not simply for a variety of teaching modes, but of the humane professional" (p. 92). They saw the teacher education classroom as a laboratory that includes instructional procedures such as "micro-teaching, simulation, modeling, and demonstration" and added that an expanded effort should be made to develop "protocol" materials that record real situations and the best way of responding (p. 93). They pointed out ways of improving faculty instructional competence, suggesting the use of a variety of teaching approaches, imposing faculty selection standards by requiring evidence of highly successful teaching experience, and providing supervised college internships with peers and experienced faculty members (p. 107). They also wished that teaching take place in a team setting. "The complexity of teacher education makes the stereotype of the autonomous teacher working alone with a standard size class of students totally anachronistic" (p. 107). Schaller and Lang (1983) also saw teaming of faculty as important, as did Rogus and Schuttenberg (1979).

Lang (1978) felt that communication must become a major concern. He stated, "All parts of a teacher preparation program must be visible, and available to discussion by all members of a faculty" (pp. 47-48). He also reported that a number of sources desired that ALL faculty take part in some form of contact with the field to increase the efficacy of their teaching (p. 48). This stance was supported by Blackburn et al. (1981).

Application Components

Corrigan (1982) cited a number of programs from which lessons about teacher preparation can be learned (p. 5). He concluded:

> The proposed action plan of the NEA as well as all of the aforementioned programs emphasize the importance of field based experiences beginning with the first education course and continuing throughout the entire program. . . . field experience continues to

> be the most neglected aspect of teacher education. Teacher preparation programs today too often have been lecture oriented. . . . this approach grossly underestimates the complexity of preparing a person for effective teaching. . . . what is taught has little transfer to classroom practice. . . . Quality teacher education must include programs and facilities for extensive laboratory and field based experiences. (p. 10)

Howsam et al. (1976) wanted a "continuous interlocking relationship between practice and theory" (p. 94). The report of the Committee to Evaluate the Extended Practicum Programs at Alberta Universities (1981) concurred, saying that their review of literature "indicated an increased emphasis upon the necessity of relating the training component to school needs" (p. 13). They stated:

> The practicum component is a necessary and effective part of a sound initial training . . . to enable teachers to deal effectively with the rapid social, economic and cultural shifts that occur. The use of the practica is widespread throughout various countries as well as within numerous professions. (p. 14)

Follow-up studies, too numerous to cite, stressed the value and importance of the practica (Schwanke, 1980). Further, the majority of sources reviewed stressed the importance of continuous involvement with the schools and the profession. None of the sources wanted a reduction.

The practicum portion of teacher training is almost invariably rated as the best part of the program by graduates of teacher training institutions. Peter (1975), reporting on the findings of a study for the Carnegie Corporation, summarized the findings in this way, "teachers generally cited practice teaching as the most valued aspect of teacher training" (p. 6).

While there has been little disagreement about the importance of applied experiences, and that improvements in the amount and quality of student teaching increased the effectiveness of teacher education (Merrill and Schuchman, 1973), there have also been many calls for reform in the applied experiences component (Joyce & Clift, 1984, p. 9).

Lasley and Applegate (1982) warned that "Excessive reliance on field experiences without concomitant exposure to relevant pedagogical concepts leads to deprofessionalization. This requires more than apprenticeship learning" (p. 3). The integrative aspects of preparation programs, as mentioned earlier, are critical. Joyce (1981), agreed, wanting a deliberate linked and supervised cycle, so more than socialization and appreciceship can take place (pp. 7-8). Richert and McBeath (1978) and Zeichner (1980) concurred.

Quality of supervision has come under criticism by numerous authorities (Peter, 1975; Richert and McBeath, 1978; Turney, 1977). Howsam et al. (1976) are among those who recommend that professional supervisors be well prepared. Indeed, many universities now encourage supervisors

to participate in courses or workshops to prepare them for the task and improve supervision (Turney, 1977, p. 47).

Lang's (1978) review of literature concluded that improvement of the practica required: integrating all phases of the program with the field; having a developmental series of practica, each followed by a period of debriefing and related theoretical learning; improving supervision by more frequent purposeful visits employing clinical techniques; improved training of faculty supervisors and cooperating teachers; and, improving the alliance between schools and universities in the planning, implementation, and assessment of the practica (pp. 51-52). He also recommended that the "reward system" at the university should reflect the importance of the practicum component (pp. 49-50). Faculty often think of themselves as lecturer/scholars rather than theory/practice facilitators. As B. O. Smith (1980) observed, the reward system, at present, is "stacked against the clinical professor" (p. 88).

Teaching Knowledge and Competence

The function of teacher preparation institutions requires that "they provide training that can make students competent practitioners of the teaching profession. . . . this has been largely neglected" (Medley, 1981, p. 9). Medley defined teacher competence in terms of "the repertoire of competencies he or she possesses" (p. 10).

Competency lists have come from a myriad of sources. Turney (1977), as a result of reviewing the literature, concluded, "One of the most impressive, and controversial, by-products of CBTE has been the endeavor by various groups to develop comprehensive catalogues of teaching competencies" (p. 21). Houston (1974) pointed out that "evidence is beginning to appear linking certain teacher behavior to student achievement," citing work done by Rosenshine and Furst (pp. 34-35). He observed, "competencies for effective teaching may not exist separately. . . . Effectiveness is really the unique combination of competencies" (p. 36).

Oliva and Henson (1980) noted that "Current efforts to describe effective teaching focus on specification of performance or competencies which teachers may be expected to demonstrate" and efforts have been made to "specify the skills which are generic or common to teachers at all levels" (p. 118). Joyce (1981) exhorted teacher preparation institutions to "build clinical training around functionally important areas --the design of schools, curriculum and teaching, so that theory and practice can be interrelated" (p. 28).

After examining curricula of teacher preparation institutions, Corrigan (1982) stated that the University of Florida effort was:

> the most comprehensive description of the knowledge base for teacher education that the teaching profession has ever had. This . . . program contains seven basic components: (1) extensive general education; (2) a comprehensive subject matter knowledge

> base; (3) a pre-education component including sociology, anthropology, psychology and other undergirding disciplines; (4) foundational education area . . . (5) a generic pedagogical component appropriate to teachers regardless of level or subject matter; (6) a subject-specific pedagogical component appropriate to the age level of students being taught or the subject matter for which the teacher is responsible; and (7) a clinical laboratory component dealing with the knowledge and experiences of a laboratory nature prior to clinical practice and during student teaching and internship. (pp. 5-6).

Corrigan was particularly interested in generic pedagogical components appropriate for teachers--regardless of level or subject matter. These were divided into the roles and duties of: teacher as teacher, teacher as person, and teacher as professional" (p. 6). He concluded that the pedagogical component must include: a knowledge of learners; knowledge of teaching methods and classroom management; knowledge of resources; knowledge of evaluation; knowledge of the education setting; and, knowledge of the profession of teaching (p. 9).

Critics of the competency movement feel that each competency which is made a required part of professional preparation must be based on solid research. Gage (1974). however, made an interesting and important point:

> Not everything desirable about . . . teacher education needs to be justified on the basis of its relationship with student achievement. Achievement is at one end of a causal chain, or at one corner of a causal network. Many desirable factors in . . . teacher education may be too remote from that final link . . . to have a discernable effect on it. They are desirable nonetheless, if they can be shown to have good effects on links closer to the treatment . . . that we are evaluating. In medicine, not every feature of the physicians technique is validated on the basis of recovery or longevity. . . . In short, proximate criteria of all sorts are justified. (pp. 181-182)

Gage also noted that we cannot wait "for scientifically established evidence to appear on the kinds of teacher behaviors and characteristics that best facilitate student achievement" (p. 173).

As the competency lists presented by various programs and sources are reviewed, one is struck by the similarity of elements. The wording may be somewhat different; however, there are many commonalities. Since this is so, and since many sources spoke favorably of the Florida Competencies, it may suffice to report these as stated by Oliva and Henson (1980). The 23 competencies devised by the 1974 Florida Council on Teacher Education are: communication skills--oral, easily understood correct writing, listening skill, reading/comprehension (of professional material) skills; basic knowledge--arithmetical, physical and social development of learners; technical skills--diagnose student's entry knowledge and/or skill for a given set of objectives, identifying long-

range goals, construct and sequence short-range objectives, develop or modify instructional materials for given objectives and learning needs, prepare select sequenced instructional activities to match objectives and learning needs, establish rapport using motivational devices, give directions, prepare classroom tests to measure student performance on criteria based on objectives; administrative skills--establish classroom routines and procedures for use of materials and physical movement, formulate a standard of student behavior, identify cause of classroom misbehavior and employ correcting techniques, identify and/or develop record keeping system for class and individual progress; interpersonal skills--counsel students individually and collectively concerning academic needs, demonstrate a feeling for the dignity and worth of other ethnic, cultural, linguistic and economic groups, demonstrate instructional and social skills which assist students in developing a positive self-concept, demonstrate instructional and social skills which assist students in interacting constructively with their peers, demonstrate teaching skills which assist students in developing their own values, attitudes, and beliefs (p. 19).

It is worth emphasizing that the word SKILL is used with frequency in the above competencies. That is, knowledge about these things is not sufficient.

To conclude, the views of Joyce and Clift (1984) must be recognized. They believe that the substance of teacher education should be developed in accordance with what they see as the four major areas of knowledge of teaching and schooling: (1) the design of schools. Students should be introduced to alternative ways of organizing schooling and the psychological and philosophical underpinnings of these. (2) the design of curriculum. Students need to be introduced to the considerable variety of methods for organizing curriculum and know how to work with a selected number of these. (3) the design of teaching. There are a number of powerful models for building the social system and instruction--students must develop skill in using them. (4) the nature of students. Students need to be able to thoroughly know at least the two developmental perspectives of emphasizing cognitive development and emotional development (p. 12).

Joyce and Clift emphasize that the program provided must not be fragmented, that theory must be carried through to application, and that learnings during the preparation program provide the basis and a schema, for lifelong professional development (p. 9).

> Paradoxically, the convergence of criticism, the serious proposals for reform, and the recent accumulation of research on teaching and teacher education may have brought us to the point where we can engage in the systematic renovation of the conduct of teacher training. (p. 5)

RECOMMENDATIONS

Based on the foregoing summary of the literature on the reform of teacher education, the following recommendations are put forward:

1. The ultimate goal of teacher education is to prepare intending teachers to become self-analyzing, self-actualizing teacher/decision-makers.

2. Teacher education must be concerned with two major, complementary, standards--"academic" and professional. Professional standards include performance capability.

3. Teacher education must be based on what is now known about effective teaching.

4. Academic, professional and application components must be well articulated, avoiding duplications, omissions, contradictions, and fragmentation.

5. The time given for professional preparation must be a minimum of two years (not including arts and sciences classes).

6. Increased emphasis must be given to PROCESS as differentiated from CONTENT.

7. Extensive laboratory and field-based experiences must be included so there can be a continuous interlocking relationship between theory and practice (for each aspect of the professional portion of the program).

8. Continuing dialogue with the partners of education is mandatory to ensure a relevant program that prepares students for the schools of today and tomorrow.

9. Increased emphasis is needed for the following: instructional skills; interpersonal and communications skills; classroom management and discipline skills; a relevant interdisciplinary "foundations" component; clinical supervision techniques; special education capabilty; motivational techniques; use of a/v and instructional materials; individualization; planning; and multiculturalism.

10. The quality of instruction by university professors must be improved. Faculty should "exemplify what they explicate."

11. Employ a developmental schema using the following steps: study theory, have controlled practice, provide feedback and have reflection, have school practice, provide feedback and have reflection, etc. "Coaching" as described by Joyce and Showers (1982) must be a part of the cycle.

12. Preservice preparation must provide the basis for, and the habit of, lifelong professional development.

13. Faculties involved in the preparation of teachers (arts and sciences) must provide classes specifically related to the work of the teacher, and classes related to the curricular content of the school system.

14. Provide the appropriate balance of academic, professional and applied components--keeping in mind that learning will continue in each of these after graduation.

15. Teacher education must be organized around the professional component. This is based on the work of a teacher in the classroom. It must be integrated through a set of generic professional capabilities--subject-specific curriculum and instruction classes, foundational classes, and application experiences must flow from this set of capabilities.

16. Much of the professional portion of the program should be delivered through teams of faculty. All faculty must have complete program knowledge and clearly understand the nature of their personal contributions to the program and how these contributions integrate.

17. A strong advisor-advisee relationship is mandatory. Professors should act as mentors to the professional development of their advisees.

18. Faculty and cooperating teachers must be trained in clinical supervision techniques; and, the "reward system" must recognize the importance of the clinical aspects of professorial work.

19. The professional core should be in keeping with a set of competencies similar to that provided by the University of Florida.

20. Research efforts must be stepped up to increase the knowledge base in effective teaching and teacher education. Faculty should be encouraged to participate in these efforts.

THE MODEL

Literature on the reform of teacher education programs identified a number of significant concerns. Program changes were recommended by numerous authorities. In the following teacher education program model, these concerns and recommendations have been grouped into three broad areas. These areas are substantive (academic), professional, and application experiences.

The substantive elements are those knowledges, skills, and attitudes that are primarily derived from the various arts and sciences disciplines. It must be recognized that these elements need not be exclusively arts and sciences disciplines. They might also include the products, processes

and attitudes of professional study areas other than education.

The professional elements are the knowledges, skills, and attitudes that are particularly germane to pedagogy. These generally encompass skills and processes that are based upon knowledge developed from research in the substantive areas as well as from pedagogical knowledge and research.

The literature on reform of teacher education programs is unequivocal about the necessity of meaningful experience(s) in the application of the substantive and professional knowledge and skills. These application experiences must be continuous and developmental if the various substantive and professional elements are to be effectively integrated into the teacher education program. Application experiences must be developed on a sound theory base and be organized as a progressive series. It is generally recommended that the first applications of knowledges and skills take place in the relatively closed, supportive environment of the teaching laboratory. This controlled practice usually consists of a variety of on-campus experiences.

The neophyte's successful development, and integration of skills and knowledges, is normally accompanied by the emergence and assertion of positive attitudes toward learners, teaching, curriculum, and schools. Feedback, analysis, and reflection are of crucial importance to personal and professional growth and maturation. "Coaching," as outlined by Joyce and Showers (1982), has been found to increase the overall effectiveness of application experiences.

It is necessary to progress to more open environments if this personal and professional growth and integration is to continue unimpeded. The neophyte must be provided opportunities to apply pedagogical products and processes in the real world of the school classroom prior to the internship experience.

Meaningful campus-field collaboration must characterize the pre-internship experience(s) in order that the internship experience may more accurately represent a logical, sequential stage in the continuing development of the effective professional decision-maker. The neophyte must be given the opportunity to formulate decisions regarding curriculum or teaching and implement those decisions in the school setting. In this way he/she is more likely to be able to accurately assess the impact and consequences of those decisions.

Program Model Principles

The proposed teacher education program model embraces the following principles:

1. The effective teacher education program must provide a meaningful balance and combination of substantive, professional, and application experiences throughout the entire course of the program.

2. The substantive, professional, and application experiences represent the environment in which the neophyte studies, gains experience, and develops attitudes about the nature of students, the design of teaching, the design of curriculum, and the design of schools.

3. The theory presented in the substantive and professional components of the teacher education program must be integrated in a carefully planned and monitored series of experiences that progress from the relatively closed environment of controlled practice in the teaching laboratory, to more open school settings.

4. Feedback, analysis, and reflection are integral aspects of all application experiences and should occur in all dimensions of the program. Coaching, as it relates to professional development, must be incorporated in the various application experiences.

5. The successful teacher education program establishes a sound basis for the developmental process of effective decision-making and the implementation and subsequent assessment of those decisions.

Figure 1 represents a teacher education program model that incorporates the program principles. Examples of four year programs that incorporate the principles of the model derived from the literature on reform in teacher education follow Figures 1. Each of the program outlines provides the opportunity to incorporate the program principles emerging from the literature on teacher education.

PROPOSED TEACHER EDUCATION PROGRAM MODEL

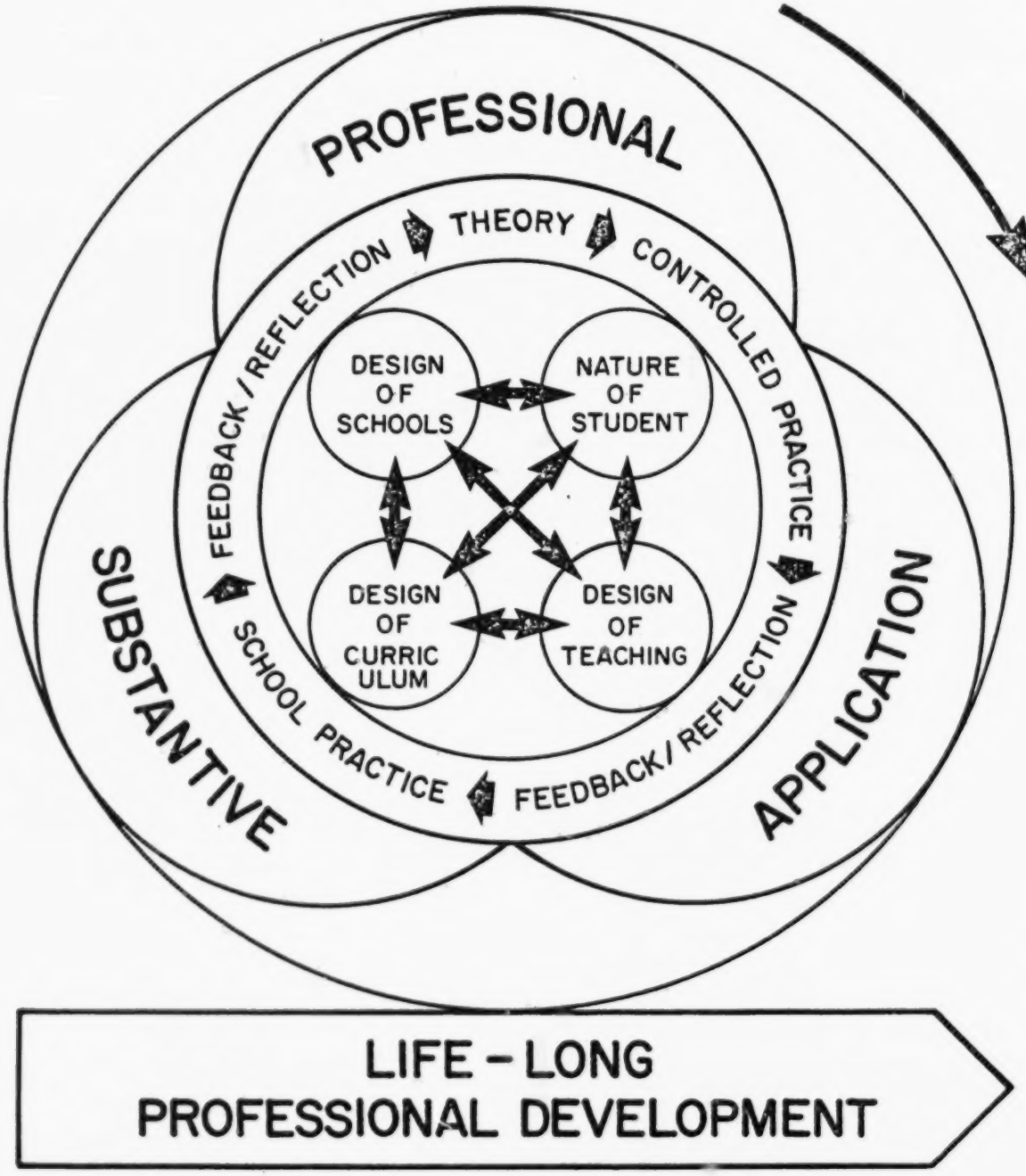

Figure 1. Proposed Teacher Education Program Model

PROPOSED ELEMENTARY PROGRAM

(based on 120 semester-hours)

MAJOR COMPONENTS:	1.	SUBSTANTIVE	42 semester-hours
	2.	PROFESSIONAL	63
	3.	INTERNSHIP	15
		Total	120

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1. SUBSTANTIVE

   a) 18 sem-hrs liberal (from each of: Communications; Computer Science; Mathematics and Science; Humanities, normally philosophy; Fine Arts; Physical Education)

   b) 6 sem-hrs undergirding liberal (sociology; anthropology)

   c) 18 sem-hrs Areas of Concentration(Reading/Language Arts required plus 2 other areas)

2. *PROFESSIONAL

   a) 15 sem-hrs Generic Skills and Strategies (i.e. Florida Competencies)

   b) 24 sem-hrs **Introductory Curriculum and Instruction

   c) 9 sem-hrs Areas of Concentration (Reading/Language Arts required plus 2 other areas)

   d) 15 sem-hrs of Others (Educational Psychology--6 hrs; Special Education--3 hrs; Computers for Teachers--3 hrs; Cross-Cultural Education--3 hrs)

   *Each component, and each year of the program, must have an application aspect (on-campus and in the schools); integration must take place anchored through the generic classes themes; progression is from simple to complex

   **Introductory Curriculum and Instruction classes are taken in each of the commonly taught elementary school subjects

3. INTERNSHIP

   15 sem-hrs for an entire semester in the schools, with experience in each school subject area; preceded by a workshop in human relations and clinical supervision skills for cooperating teachers, interns, and faculty advisors; concluding with, or interspersed with, 5 weeks of debriefing/planning experiences; supervision focusing on clinical supervision techniques, using a Joyce and Showers (1983) model.

NOTE: The internship will occur in the 7th semester. This will be preceded by two semesters of pre-internship classes delivered totally through the faculty of education, and including a day per week in the schools, concluding with a 2-week school block. Classes will be an integration of generic skills and strategies, educational psychology, and school subject area curriculum and instruction (involving laboratory and microteaching experiences). A theory/controlled practice/school practice schema will be employed. A teamed professional delivery mode will be used.

PROPOSED SECONDARY PROGRAM

(based on 120 semester-hours)

MAJOR COMPONENTS:	1.	SUBSTANTIVE	60 semester-hours
	2.	PROFESSIONAL	45
	3.	INTERNSHIP	15
		Total	120

---

1. SUBSTANTIVE

   a) 9 sem-hrs liberal (from each of: humanities--normally philosophy; Mathematics or Science--normally Computer Science; and, Communications--English or Fine Arts)

   b) 6 sem-hrs "undergirding" liberal (sociology; anthropology)

   c) i. 45 hours major/minor discipline-specific (minimum of 9 hours in minor; minimum of 27 hours in major)

   OR

   ii. 45 hours for 3 strong minors of 15 hours each

2. *PROFESSIONAL

   a) 15 sem-hrs Generic Skills and Strategies (i.e. Florida Competencies)

   b) 15 sem-hrs Major/Minor (minimum of 3 for a minor; minimum of 6 for a major)

   c) 15 sem-hrs Other: (Educational Psychology--6; Special Education--3; Computers for Teachers--3; Cross-Cultural Education--3)

   *Each component, and each year of the program, must have an application aspect (on-campus and in the schools); integration must take place anchored through the generic classes themes; progression is from simple to complex

3. INTERNSHIP

   15 sem-hrs for an entire semester in the schools, with experience in major and minor areas; preceded by a workshop in human relations and clinical supervision skills for cooperating teachers, interns and faculty supervisors; concluding with, or interspersed with, 3 weeks of debriefing/planning experiences; supervision focusing on clinical supervision techniques using a Joyce & Showers (1982) model.

NOTE: The internship semester will be the final semester of the program. This will be preceded by two semesters of pre-internship classes delivered totally through the faculty of education and including a day per week in the schools, concluding with a 2-week school block. Classes will be an integration of generic skills and strategies, educational psychology, major/minor curriculum instruction involving laboratory and micro-teaching experiences (theory/controlled practice/school practice). Teaming is critical in professional experiences.

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